

The Impact of Using a Program of Recreational and Popular Games on Social Interaction among Deaf Children aged (8-10) years in the Hashemite Kingdom of Jordan

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Abstract

The present study aimed to investigate the effect of using a program of recreational and popular games in the social interaction of deaf children aged (8-10) years in the Hashemite Kingdom of Jordan on a sample of deaf children reached (30) male and female children and the results showed that the proposed educational program contributed effectively in developing the skills of social interaction (cooperation and teamwork, communication skills, self-reliance and responsibility) in the children of the experimental group, the results showed a positive effect of the proposed educational program based on recreational and popular games in developing social interaction skills among deaf children at the age of (8-10). There were statistically significant differences between the children of the experimental and the control groups in the development of social interaction in the post-test in favor of the children of the experimental group, the researchers recommend conducting similar studies on various types of life skills, and for all educational stages of the deaf students.

Keywords: Recreation games, popular games, Social interaction, Deaf children.

Introduction

The childhood stage is one of the most important stages in forming the personality of the deaf child. It is considered a stage of formation and preparation in which the personality of the deaf child is shaped in the future. It also includes habits and trends, develops tendencies and preparations, shows abilities, develops skills, and explores the path of their behavioral, physical, mental, psychological, health and social growth.

This stage is considered one of the most important stages of the deaf child's life because in it he begins to acquire the right harmony with the external environment, because it affects his behavior later, and becomes the distinctive behavior and the solid foundation upon which his personality will be built in the future (Azari, 1990).

A deaf child at this stage needs someone who can better organize his life and create his environment to create environmental situations full of experienced sources of expertise (Al-Azza, 2002).

From this point, bestalouisi (1746-18270) who is considered among the first scholars talked the importance of raising children, their growth and development by caring for them, providing the love and affection they need, educating them religiously and culturally, and developing their physical, mental and moral abilities through spontaneous activities and self (Abu Assaad, 2011).

Also Frobil (1782 - 1852) a pioneer in children's education, who focused on the importance of the role of play in children to rationalize the spiritual, moral and educational aspects at an early age, and to allow them to interact dynamically with their reading, self-expression, self-confidence, and discovering its features (Al-Khuli, 2011).

As play is of great importance in shaping the personality of the child, as well as being one of the main vocabulary in his world, which is gained by the tools of learning and experience, so playing from the perspective of psychologists and education is an important aspect of children's growth in the mental, physical, social, moral, cognitive, emotional and linguistic aspects (Al-Hila, 2007).

Moreover, play is the symbolic language of the child to express himself. He reveals his feelings for himself and for the important people in his life and the events he has undergone so that we can say that play is the child's talk and his words (Abdel-Fattah, 1975).

The play also contributes to providing opportunities for social interaction and emotional maturity of the child with others, he learns to take and give away the status of self-centered and learn how to exchange roles with others (Sayeh, 2007).

On this basis, attention to play in children at this stage is one of the basic components of building and developing the motor and social abilities that contribute to building the deaf child's personality and serve him in the society in which he lives and serve him in the group that he interact with them to face the psychological and emotional experiences that interact with him and he interacts with to achieve psychological and social compatibility (Abdul Khaliq, 2001).

Mueller and McKinky (1983) believe that the education of children with hearing disabilities in preschool should include many diverse activities that include cognitive fields and skills, such as play, language, and motor, social and psychological skills (Al-Hathili, 2005).

Free play frees the child from the constraints and opens his mind and starts his fantasies and training through the creative work, and the child's play in the training of imagination and innovation, because in playing the opportunity to work and proficiency and experimentation and the development of the child's perceptions and development of ownership and senses is the way to innovation (Al-Hila , 2007).

The importance of the study

The importance of the study is that it provides a modest contribution by providing a tool for measuring the social interaction of deaf children. In particular, curriculum developers in the Jordanian Ministry of Education stressed the need for educational institutions to prepare courses to measure the behavioral aspects and collection of deaf children after each unit.

This study gives an indication of the extent to which motor and popular programs affect the development of social interaction among deaf children.

And that this study is only an attempt to identify the level of social interaction in deaf children as a step on the way to evaluate some of the educational and sports programs used in "Al Amal" schools for the deaf in order to work to push them in the right direction.

The problem of the study

"Al Amal" schools for the deaf are among the most important educational institutions for the deaf children as they come after the home and the family directly in the educational process, and these begin to influence the habits, behavior and activities of the deaf children, including psychological, social, and educational, here comes the attention of this important age group of Deaf people , so that education comes in its active and fundamental role to help in the process of education and motor, psychological and social development , and be subject to methodology at the theoretical and applied according to the objectives of this age stage as it is a stage of building the deaf child's personality. As the participation of Deaf children in the play at "Al Amal" schools depends mainly on free play, which is in the form of free games proposed by the teachers who supervise and guide only without a specific goal, which leads to a backlash on the educational process, as well as these games neglect the emotional field, which is complementary to the field of knowledge and the psychological dynamic field through free playing.

In order to achieve this, it was necessary to organize educational programs that include a variety of recreational and popular games geared to satisfy the needs and tendencies of the deaf child, as these games are considered to be exciting for their diversity and marketing, and the fact that each game is different from the other game, Some are for entertainment other are social, which emphasizes the preference for the use of one another when it aims at social interaction, as well as the lack of a tool to measure social interaction.

The problem of this study is determined by using a program of recreational and popular games as a program to ensure that these games are utilized and used in their natural field, In addition, to know the impact of using each of them as an educational measure in developing social interaction among these deaf children.

Hence the urgent need to design and develop an educational program based on sound scientific foundations that is appropriate to the nature of the stage and its characteristics, to be useful and helpful not only for teachers, but also for those working in the field of drawing up plans, programs and curricula for this stage in the Jordanian Ministry of Education.

As the Ministry of Education in Jordan started to form committees to prepare special curricula for this stage focused on the social skills and basic life of the deaf child, the idea of conducting this study as a serious attempt to help those in charge of these curricula and to fill some of the shortage in this area (Ministry of Education, 2007).

Objectives of the study

The present study aims to:

- Designing an educational program using recreational and popular games to develop social interaction among deaf children aged 8-10 years in general.
- Knowledge of the effect of recreational and popular recreational programs in developing social interaction among deaf children aged 8-10 years.
- Comparison of the effect of recreational and popular recreational programs on the development of social interaction among deaf children aged 8-10 years in general between the members of experimental group and the control group.

Study Questions

This study seeks to answer the following questions:

1. Is there a statistically significant effect at the level of significance (α 0.05 0.05) between the pretest and posttest in favor of posttest in the recreational and popular games program in the development of social interaction among deaf children aged 8-10 years in general ?.
2. Are there statistically significant differences in the level of significance (α 0.05 0.05) between the pre and posttest in favor of posttest in the recreational and popular games program in the development of social interaction in deaf children aged 8-10 years according to the study groups (experimental and control)?

Procedural Definitions

Recreational games: include all aspects of constructive and socially acceptable activity that are performed during leisure time and are chosen and shared for internal motives according to the will of the individual, for the purpose of acquiring many personal values and achieving satisfaction, pleasure and enjoyment of participation, not for external motives, such as material or moral gain (Al-Fadil, 2007).

Popular Games: An educational and social activity through a movement or a series of movements aimed at entertainment. It is a guided activity by the child for fun, a fun activity in which the child's growth and development helps to develop his personality (Suleiman, 2005).

Social interaction: The capabilities and abilities that are available to the individual and enable him to deal and interact with others in a different environment where he deals with this environment and adapts himself with it.

Deaf child: An individual with an auditory impairment to the point of hearing loss (70 dB), which prevents him from relying on hearing to understand speech using or without headphones (Azzah, 2002).

Previous Studies

In view of the lack of previous studies similar to the current study in the Arab Library to the knowledge of the researcher and the inability of the researcher to obtain foreign studies in this area, so this part was limited to the nearby studies, which dealt with the play in terms of its positive effects on the educational, emotional and social aspects, including:

Al-Damour and others (2013) conducted a study aimed at identifying the effect of the use of small popular educational games in developing the life skills of Deaf students in the first three grades of the basic stage in Jordan. The study sample consisted of 40 students from Al Amal School for Deaf at Aujan and Al Raja School for the Deaf in the Rusaifeh District, the sample was divided into two groups, one of which was experimental and the other control. The experimental group underwent the proposed educational program, while the control group was subject to the regular program. The researcher used the experimental method to perform the pre/posttests and appropriate statistical treatments. The results of the study showed the effectiveness of the use of motor and educational games in the development of life skills (cooperation and teamwork, communication, self-reliance and responsibility) among students of the lower basic stage, and that there are significant differences between the control and experimental groups for the benefit of the experimental group.

Awad (2008) has conducted a study aimed at improving the life skills that are suitable for students of intellectually disabled at intellectual learning schools through differences between the pre/post measurements of the impact of a sports recreation program that includes the following skills: "self-care, social skills, shopping skills, Language skills, and cognitive skills". The study sample was chosen purposefully, consisting of (30) children, and the results of the research in light of the statistical treatment of those data showed the impact of the proposed recreational program on the development of some skills, "self-care and social, economic, linguistic and cognitive skills, and the researcher recommended the need to make sports recreational programs for other types of disabilities.

Ghoneim (2008) also studied the effectiveness of a program to develop some life skills in blind children in the kindergarten stage. The study aimed at increasing the child's ability through the life skills program to meet the demands of future life. The study sample consisted of 15 children in the age group (4-6) years. The researcher used the experimental method in his study and through this he reached the results that indicate the existence of statistically significant differences between the grades of the blind children in the dimension of social responsibility, social communication and self-care in favor of the application of the tools of study.

Al Hayek and Batayneh (2007) discussed in their study which aimed at identifying the extent of the use of life skills in the curricula of physical education, from the point of view of the students of the Faculty of Physical Education at the University of Jordan, the sample included (246) students distributed over the four years, results showed that there is a consensus among the students of the Faculty of Physical Education at the University of Jordan, according to their academic level and gender, that the curricula of the College of Physical Education do not have enough of the necessary life skills and necessary for them, and the researchers attributed these results to not based on the curricula to the overall quality standards. The researcher recommends the need to integrate life skills in the curricula of physical education, and the need to activate students' use of modern technology represented by the Internet, and means of communication in the process Education.

Issa (2006) studied the effectiveness of educational games in providing some scientific concepts for the children of the kindergarten stage with hearing impaired in Saudi Arabia, the study consisted of (72) deaf students. The study used the descriptive analytical method and the experimental method. The results of the study showed that there are statistically significant differences between the mean scores of the experimental group in the pretest and the average score of the same group in the posttest of the scientific concepts in favor of the posttest. This result indicates that the achievement level of deaf children has improved the deaf children's achievement in scientific concepts, which assures the effect of educational side that the educational games include on the learning style for deaf children.

The study of Hadhuda and Mushrifi (2005) aimed at identifying the impact of a recreational program for the development of some social skills, social communication, social interaction, money and purchasing (for children with mental disabilities), who are able learn. The researchers used the survey and experimental methods because it suits the nature of this study. The sample of the study was chosen purposefully from the mentally

handicapped children who are "able to learn" by intelligence rate (50 - 70) within the Egyptian General Society for the Protection of Children (Dar El Hanan for Intellectual Rehabilitation). They were (10) children with learning disabilities who are able to learn (5 males, 5 females), their ages ranged between (9-14 years), and the researchers designed the questionnaire and a program for entertainment development of some social skills for children with intellectual disabilities who are able to learn, the results showed that the proposed recreational program has a positive statistically significant impact on the development of some of the social skills of children with intellectual disabilities who are able to learn, and the absence of statistically significant differences between boys and girls.

Abdul Rahim (2003) studied the effect of a proposed program for motor education on the motor, psychological and social competence of the mentally handicapped, and aimed to develop a program of motor education suitable for mentally handicapped children who are capable of learning. Their level of intelligence ranges from (50-70) and their ages ranged between (9 - 13) years and their mental age ranged between (5-7) years and also discussed the impact of this program on their motor, psychological and social competence, pre/post measurement were conducted using the SPSS package), and in light of the results of the research, The researcher reached a result that the program of motor education has a positive impact on development efficiency of motor behavior and reduce the level of developmental and behavioral abnormalities and on the development of motor, psychological and social competence for mentally disabled children from the category "able to learn".

Commenting on previous studies

Through reviewing the previous studies, it was found that there is similarity between the current study and the previous studies in the statistical operations and in the similarity of the basic movements that were measured and the application of the programs and the importance of the basic movements of the children and its ability to improve their performance level for this very important age in the life of the child in addition to design training programs in all studies, the study differed in that it based on a group of recreational games that developed the basic movements and skills of the deaf child, such as the skill of cooperation between deaf students, teamwork skills, communication skills, self-reliance skills and responsibility. The present study also distinguished from the previous studies in its population and its sample where it aims to teach deaf children basic social skills in a systematic scientific and organized manner in the form of games, which helps to develop their ability in the future.

Determinants of the study: This study was limited to third and fourth grade students in Al Amal and Al-Raja schools for deaf schools in Al- Zarqa and for a range of life skills: cooperation skill among students, teamwork skills, communication skills, self-reliance and responsibility.

Design and Methodology

Study Procedures

The experimental method was used as the appropriate method for the nature of this study, through using the experimental design of two groups, one experimental and the other one is control using the pre/post measurements of both groups.

Study sample

The study population included all deaf children in the Hashemite Kingdom of Jordan, aged between (8 - 10) years. The sample of the study was chosen purposefully, it consisted of (30) male and female children from Al Amal and Al Raja Schools for Deaf in Zarqa city. they were distributed randomly into two groups experimental and control, (15) boys and girls (9) males and (6) females, control group strength (15) boys and girls for the experimental group (9 males and 6 females) and (15) children for the control group (9 males and 6 females).The program was implemented in the second semester of the academic year 2016/2017.

Research tools

An observation questionnaire for the assessment of the deaf child prepared by the researchers, and a recreational program based on social recreational games for the development of social skills of the deaf child

also prepared by the researchers.

The proposed educational games program: is a program that provides deaf children with the types of activities that suit their needs to ensure the continuity of their social, mental and emotional development. The recreational and popular games program was developed in the social interaction of deaf children (8-10 years) The program includes many basic social skills, the most important of which are : cooperation skills between deaf students, teamwork skills, communication skills, self-reliance skills, and responsibility after reviewing many studies related to the current study such as Al-Dmour, et al (2013), Awad (2008), Al-Hayek (2007), Issa (2006), Hudhuda and Mushrifi (2005) and Abdel-Rahim (2003), and some scientific references and specialized books in the education of deaf children and children with special needs, as well as the use of some teachers specialized in teaching this category and the age group, in addition to the experience of researchers in developing and creating some recreational and popular games that support the objective of this study. Table (1) shows the temporal distribution of the proposed program.

Table (1): shows the proposed popular recreational games program by using social recreational games

Program Objective		The program aims to practice deaf children social interaction skills to know their rights as a citizen and to carry out his duties and responsibilities and help him to engage in the community and the development of some citizenship values
Program content popular recreational games		The program consisted of (24) recreational units using social recreational games, which was implemented over two months (3) units weekly, unit time (30) minutes consisted of (3) parts as follows
	The introductory part	Its time (5 minutes) includes a series of exercises and competitions for the purpose of mental and physical rehabilitation of deaf children and enthusiasm and willingness to participate actively in the units of the program
	The main part	Its time (20) minutes and includes a set of recreational popular and social games use simple tools of the environment contribute to satisfy the desire of the deaf children to play regularly selected to develop social skills and it include (30) popular and social games
	The closing part	Its time (5) minutes and includes relaxation exercises and some simple games to return to the normal state

Through the establishment and implementation of the program the following were taken into consideration:

- Gradient in rendering software components from easy to difficult.
- Diversity in the use of appropriate tools for the selected age stage.
- Both macro and micro methods were used.
- A number of well-known teaching methods were used for Austin and Ashort during the implementation of the program for their relevance to the nature of the study and the characteristics of this group of people with special needs and age group.

The researchers designed a scale after identifying the most relevant skills related to the study that should be acquired by deaf children, and was formulated in the form of various items corresponding to the objectives of the study. The scale took the shape of a note card, where the teacher of the class assigned to teach the students the specific dimensions of the following social skills responded to the items of the scale: cooperation and teamwork, communication and contact, self-reliance and responsibility. Likert quintet scale was used as follows: (5) strongly agree, (4) agree, (3) neutral, (2) disagree and (1) strongly disagree.

The content validity of the program and the questionnaire were found by presenting them to a number of experts and specialists who hold PhD degrees in Jordanian universities. In light of the above, the proposed educational program and the questionnaire were prepared.

Equivalence of Study Sample: The objective of the study is to compare the experimental group members with the control group and to identify the effect of the educational program by using social recreational games on the development of social interaction skills. The researchers conducted a process of

adjusting the variables that may affect the results and tests of the study. Means, standard deviations, and T-test for the two groups of study (experimental and control) on each skill of development of social interaction in pretests were used, as shown in Table (2):

Table (2) shows the arithmetical averages, the standard deviations and the T test for the members of the study groups (experimental and control) on each skill of developing social interaction in pretests

Skill	Group	N	Mean	Standard deviation	T value	Df	Sig
Cooperation and teamwork	Experimental	15	2.87	0.25	0.098	38	0.923
	Control	15	2.86	0.24			
Communication and contact	Experimental	15	2.87	0.25	0.845	38	0.403
	Control	15	2.70	0.37			
Self-reliance and responsibility	Experimental	15	2.82	0.20	-	38	0.816
	Control	15	2.83	0.26	0.235		

Table (2) shows that there are no statistically significant differences at the level of statistical significance ($\alpha = 0.05$) between the experimental and control groups on each skill of social interaction development in the pretests, indicating the equivalence of the study groups in social interaction development skills before applying the proposed tutorial.

In addition, the discriminative validity (the correlation coefficient of the item with the scale as a whole) for the quality of life skills (collaboration, teamwork, communication skills, self-reliance, and responsibility) has been extracted and table (3) illustrates this.

Table (3) the correlation coefficient of the paragraph with the scale as a whole (discriminative validity)

Scale of cooperation and teamwork		Communication and contact scale		Scale of self-reliance and responsibility	
Item	The correlation coefficient of the item in the scale as a whole	Item	The correlation coefficient of the item in the scale as a whole	Item	The correlation coefficient of the item in the scale as a whole
1	0.34	1	0.32	1	0.46
2	0.47	2	0.46	2	0.52
3	0.37	3	0.52	3	0.33
4	0.44	4	0.63	4	0.35
5	0.52	5	0.34	5	0.37
6	0.51	6	0.34	6	0.48
7	0.36	7	0.44	7	0.57
8	0.38	8	0.46	8	0.67
9	0.42	9	0.48	9	0.72
10	0.33	10	0.50	10	0.37
11	0.47	11	0.55	11	0.37
12	0.52	12	0.62	12	0.38
13	0.62	13	0.35	13	0.41
14	0.52	14	0.34	14	0.36
15	0.35	15	0.46	15	0.32

Correlation coefficient (0.30) to accept the item

Reliability coefficient: The reliability of the study instrument was verified by applying it to a sample consisting of (10) students who were taken from the study population and excluded from entering the sample of the study by test and re-test method with a two week period. Second, Pearson correlation coefficient was calculated between the two applications and on each skill of social interaction development. The internal consistency coefficient (Cronbach alpha) was also extracted for the same social skills. Table 4 illustrates this.

Table (4) shows the repetition reliability coefficient and the internal consistency of each skill of social interaction development

Skill	Pearson coefficient reliability)	correlation (test-retest	Internal coefficient alpha)	consistency (Cronbach
Cooperation and teamwork	0.84		0.90	
Communication	0.90		0.95	
Self-reliance and responsibility	0.91		0.96	

The pilot study

The researchers conducted a pilot study on (10) deaf students from outside the study sample and from the same study population. The proposed educational program was applied for a week. The aim of the pilot study was to identify the difficulties and errors that the researcher may encounter during the application and to identify the games' appropriateness for the specified time, the distribution of parts of the teaching unit, the identification of the time and place to apply the program, the identification of the organizational method and the establishment of the practical transactions for the tests.

Pre- Tests: The researchers carried out the pre-tests after confirming the validity and reliability of these tests, which reached a high degree for the study sample of the two groups.

Study Variables:

The Independent Variable: Tutorial Using Kinetic and Educational Games

The dependent variable: life skills.

Statistical analysis: SPSS, mean, standard deviation, percentage, and t-test were used in the analysis of the results, and (Z) for percentage differences.

The results of the study and its discussion

The statistical analysis of the data in light of the goals and variables of the study resulted in the following results according to the study questions:

First question: Is there a statistically significant effect at the level of significance ($\alpha = 0.05$) between the pre-test and post-test in favor of the post-test in the recreational and popular games program in the development of social interaction in deaf children aged 8-10 years in general?

To answer this question, means, standard deviations, and T- test were used to estimate the experimental group's students on the scale of pre-test and post-test of social interaction development skills. Table (5) shows the means, standard deviations and T- test between the pre- and post- Experimental development skills for social interaction.

Table (5) shows the means, the standard deviations and the T- test between the pre and posttests of the experimental group of social interaction development skills

Skill	Test	N	Mean	Standard deviation	T value	Sig
Cooperation and teamwork	Pre	15	2.86	0.24	15.363	*0.000
	Post	15	3.81	0.30		
Contact and Communication	Pre	15	2.87	0.24	13.643	*0.000
	Post	15	3.89	0.41		
Self-reliance and responsibility	Pre	15	2.81	0.21	13.987	*0.000
	Post	15	3.87	0.28		

* Statistical significance at the level of statistical significance ($\alpha = 0.05$)

Table (5) shows that there is a statistically significant difference at the level of statistical significance ($\alpha = 0.05$) between the pre-test and post-test measurements of the experimental group members and in favor of the posttest on all social interaction development skills.

Table (6): means of the pre-test and post-test and the improvement rates for the pre-test of the members of the experimental group of life skills.

Skill	Pre-test	Post-test	Improvement rate
Cooperation and teamwork	2.87	3.82	33.10%
Contact and Communication	2.78	3.90	40.2%
Self-reliance and responsibility	2.82	3.88	37.58%

Table (6) shows the values of the arithmetical averages of the pre and post tests and the improvement rates for the pre-test of the members of the experimental group. In reviewing the improvement rates, the preference is for contact and communication by (40.2%), then self-reliance and responsibility (37.58%), then cooperation and collective action by (33.10%).

The researchers attribute the results to the positive impact of the proposed program and it has positively impacted the performance of the experimental group in social interaction development skills. Researchers attribute this improvement to the fact that the proposed educational program provided positive and appropriate opportunities for the interaction of the experimental group's students with educational experience. They were active participants in the learning process, not as recipients of information, and it increased the opportunity to practice their social interaction experiences. Faraj (2008) has shown that games help social growth, the individual during play discovers his responsibility towards the community, the need for dependency and leadership, and the practice of success and a sense of belonging, the following are achieved during play: cooperation, love between students and respect for others' rights.

The proposed educational program, through what has been proposed, has worked to develop the basic needs of Deaf students, such as: a sense of belonging, self-respect, cooperation, and communication. This is indicated by Sukkari et al. (2006) that recreational, motor, and educational games are important and successful educational aids in helping children to develop a comprehensive growth that is mentally, physically, psychologically and socially balanced, as well as contributing significantly to the development of the functional capacity of the body.

And that the educational program, included the kinetic and educational games helped to belong to the deaf student to the group, which was born to feel safe and secure within the social environment, and that the students of the experimental group through the exercise of different games directly or indirectly, have developed the social, moral, mental and psychological side, as well as what the proposed educational program included learning about social norms, discipline, love of work, cooperation, communication and the development of desirable behavior through practical attitudes.

Based on the above, the results of the study showed a statistically significant effect at the level of ($\alpha = 0.05$) for the use of the proposed educational program based on recreational and popular games in developing social interaction skills for students of the age group (8-10) years, the result of this study agreed with the results of the studies of Domour et al (2013), Awad (2008), Ghumaim (2008) and Haik (2007) which showed the effectiveness of the use of educational programs based on scientific foundations and appropriate to the nature of the age stage in the development of social and life skills in general.

The second question: Are there statistically significant differences in the level of significance ($\alpha = 0.05$) between the pre and post measurement for the benefit of the post measurement in the recreational and popular games program in the development of social interaction in deaf children aged (8-10) years, and according to the study groups (experimental and control) ?

To answer this question, the arithmetical averages, the standard deviations, and the (T) test were used for the estimates of the experimental and control group students on the scale of development of social interaction skills. Table (7) shows the arithmetical averages, standard deviations and t-test of experimental and control group performance on each skill of development of social interaction in the post tests.

Table (7) means, standard deviations and t-test of the performance of the experimental group and the control over each skill of the development of social interaction in the post tests.

Skill	Group	N	Mean	Standard deviation	T value	Sig
Cooperation and teamwork	Experimental	15	3.81	0.31	12.752	*0.000
	Control	15	2.70	0.23		
Contact and Communication	Experimental	15	3.89	0.41	10.188	*0.000
	Control	15	2.83	0.25		
Self-reliance and responsibility	Experimental	15	3.87	0.28	13.663	*0.000
	Control	15	2.74	0.23		

* Statistical significance at the level of statistical significance ($\alpha = 0.05$)

Table (7) shows that there is a statistically significant difference at the level of statistical significance ($\alpha = 0.05$) in the post-test between the experimental and control groups and for the experimental group on all skills of social interaction development.

Table (8) means for posttest for the control and experimental groups in the social interaction development skills

Skill	posttest/ control	Posttest/ experimental	Improvement rate
Cooperation and teamwork	2.69	3.79	40.91%
Contact and Communication	2.81	3.89	37.29%
Self-reliance and responsibility	2.80	3.90	41.19%

Table (8) shows the values of the arithmetical averages of the pre/post measurements, the improvement rates for the pre measurement of the experimental group members, and through reviewing the improvement rates, we find the best improvement is self-reliance and responsibility with a percentage of (41.19%), then cooperation and teamwork with a percentage of (40.91%) . The percentage of contact and communication was (37.29%).

The researchers attribute the progress of the experimental group children's performance on the control group children's performance in the posttests of social interaction development skills, to the effectiveness of the proposed educational program based on recreational and popular games. This is what Aweys and Abu Al-Nawar (2005) point out that through games in the peer group, the child learns a lot of things, and affects his physical, mental and emotional composition positively. He learns to cooperate with the community members, appreciate their rights, and acquire the rules of the game and its provisions, the meaning of adherence to the system and the importance of joining the group and belonging to it, to prove himself.

The researchers also believe that the games are a successful way to teach the child the spirit of the group, how to compete in ways that are not aggressive, to recognize his abilities and energies in comparison to the abilities and energies of others. He is happy if he wins, and does not get angry if others won. Thus he learns how the child behaves tactfully within the group, and become accepted and familiar by the environment that lives. Cooperation is linked to the skills of communication, interdependence, trust, and the development of positive social interaction skills.

The games included in the educational program benefited the children of the experimental group. It worked to expand and deepen their awareness. It gave them the opportunity to adapt to others and thus to the environment and society. They worked to develop the spirit of social responsibility and instilled in them self-reliance and emotions control. Moreover, it reassured them, and supported their confidence in themselves and their being deaf children.

Based on the above, the results of the study showed that there were significant differences at the level of ($\alpha = 0.05$) for the use of the proposed educational program based on popular recreational games in developing social interaction skills among deaf children aged 8-10, between the children of the experimental group who used the proposed educational program and the children of the control group who used the regular program in favor of the experimental group. This result is consistent with the results of the study of Abdul Rahim (2003), Hadhuda & Mushrifi (2005), Issa (2006), Hayek and Batainah (2007), Ghuneim (2008), Al-Al-Dmour and others (2013), which demonstrated the effectiveness of using the Educational programs in the development of social, psychological, sports and life skills in general.

Conclusions

In light of the objectives and questions of the study and based on statistical treatments and analysis of results, the researchers reached the following conclusions:

1. The proposed tutorial has effectively contributed to the development of social interaction skills (collaboration, teamwork, communication skills, self-reliance and responsibility) in the children of the experimental group.
2. Positive impact of the proposed educational program based on recreational and popular games in developing social interaction skills among deaf children at the age (8-10).

3. There were statistically significant differences between the children of the experimental group and control in the development of social interaction in the post-test in favor of the children of the experimental group.

Recommendations

In the light of the results of the study, the researchers recommend the following:

The use of the proposed educational program based on recreational and popular games in developing the skills of social interaction among deaf children at the age of 8-10 in Jordan, and the need to develop a diverse curriculum for deaf students in the basic stage of the minimum working on the development of social and psychological, sports and life skills of various kinds, And the need for teachers of deaf students in the basic stage to develop life skills as an integrated and mutually reinforcing, and not confined to one area without another, and to continue to conduct intensive training and educational workshops for deaf children teachers, and to train them effectively to learn about the life skills of each stage, its importance, how to develop it, and to provide schools with tools, materials and educational devices that help in the implementation of classroom and extracurricular activities using different methods, and the presentation of these activities through different strategies, in order to achieve the desired goals in the easiest ways, and conduct similar studies on life skills of various kinds on the rest of the subjects, and for all educational stages.

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Appendices

Life skills tests

1) Skill of cooperation and teamwork:

N	Item	Always	frequently	Sometimes	Seldom	Never
1	Respect and accept the ideas of others					
2	Has the spirit of belonging to the group					
3	Adheres to the teacher's directions					
4	he prefer the community interest over the individual interest					
5	<i>takes the initiative in helping others</i>					
6	He trusts his team					
7	he endures the pressure of work with group members					
8	Negotiates with others about play situations					
9	Interacts with colleagues during work					
10	Do not blame others					
11	Participates in group games					
12	Initiate new relationships with others					
13	share the others their feelings and sympathize with them					
14	he takes the role of the leader and the subordinate					
15	Works with everyone without distinction					

2) Scale of contact and communication skills

N	Item	Always	frequently	Sometimes	Seldom	Never
1	Shows attention and good listening to others					
2	Maintains his focus throughout listening to the teacher's instructions					
3	Understands the signals from others					
4	Shows appropriate reactions during practicing group activities					
5	<i>He takes the initiative to talk to others</i>					
6	he uses the reference communication to deliver the information					
7	Participates in games with his colleagues					
8	Communicates confidently with others					
9	He negotiates with others to convince them of his point of view					
10	permission is requested before participating in the discussion					
11	Treats others and their feelings in an acceptable way					
12	Shows interest in building new friendships					
13	Thanks the person who helps him					
14	shares others laughter in some situations					
15	Treats others in a decent way					

3) Scale of self-reliance and responsibility

N	Item	Always	frequently	Sometimes	Seldom	Never
1	He can identify his needs					
2	He admits his mistakes honestly					
3	he prefer the community interest over the individual interest					
4	Recognizes the importance of fulfilling the obligations required from him					
5	<i>Endures the pressure to work with members of the group</i>					
6	issues indorse judgments on his performance					
7	Can make a sincere judgment on the performance of others					
8	Distinguish between right and wrong					
9	Possess a sense of responsibility					
10	gives good suggestions					
11	Appreciates himself well					
12	Shows self-confidence when playing					
13	Show initiative					
14	Negotiates with others to reach the best solutions					
15	possesses a will power					